

Speaker: GARY GRIM (P-23, LANL)

Title: ICF, the NIF, and Nuclear Physics

The National Ignition Facility at LLNL is the world's newest and most powerful laser, having been commissioned during the spring of 2009. The NIF was designed to study the major scientific questions surrounding Inertial Confinement Fusion (ICF) and High Energy Density (HED) Science and is currently the US platform for studying science relevant to the US Weapons Program's (WP) Thermonuclear Burn Initiative (TBI). Experiments at the NIF began this past summer, and to date, experimental results have generated considerable excitement about the prospects of achieving controlled thermonuclear burn in a laboratory setting. In this talk I will provide an overview of ICF, and the NIF, and discuss some of the impediments to ignition and the role nuclear physics plays in both diagnosing these, as well as the science that may